

(54) PREPARATION OF METHACRYLIC ACID

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**PURPOSE:** To collect liquid methacrylic acid industrially and advantageously, by recovering heat from a reaction gas containing methacrylic acid formed through the vapor phase oxidation reaction in a heat exchanger, and keeping the reaction gas temperature at the scrubber inlet at a specific value or above.

**CONSTITUTION:** Methacrylic acid is formed in an oxidizing and dehydrogenating reactor 1 by the isobutyric acid, isobutyraldehyde, isobutylene or methacrolein method, and the heat is recovered by a heat exchanger 2 to keep the gas temperature at the inlet of a scrubber 3 at 130°C or above, preferably 140°C or above but not higher than the reaction temperature, more preferably 160~200°C, and further cooled to collect the liquid methacrylic acid. A polymerization inhibitor, e.g. hydroquinone, may be added to the collected methacrylic acid to prevent the polymerization thereof.

**EFFECT:** The method described above is industrial and advantageous from the viewpoint of load on the scrubber, heat loss, prevention of pipe clogging, etc.

